1	2	3
25	Guna	236
26	Shivpuri	176
27	Morena	101
28	Bhind	155
29	Jabalpur	307
30	3Q Mandla	171
31	Narsinghpur	536
32	Seoni	474
33	Balaghat	920
34	Chhindwara	375
35	Satna	657
36	Sidhi	106
37	Rewa	208
38	Shahdol	195
39	Raipur	2982
40	Durg.	254
41	Rajnandgaon	480
42	Bastar	915
43	Bilaspur	758
44	Raigarh	1105
45	Sarguja	242
	TOTAL	26883

Greater harnessing of non- conventional Sources of Energy

1628. SHRI S. S. AHLUWALIA: Will the PRIME MINISTER be pleased to

(a) whether it is a fact that Government policy envisages growth in availability of electricity through greater harnessing of non-conventional sources of energy;

(b) if so, the details thereof,

(c) whether it is a fact that areas suitable for harnessing respective sources of non-conventional energy viz., wind power, solar power, bio-mass and mini-hydel power etc, have been identified and programmes drawn for implementing it; if so, the details thereof;

(d) whether it is also a fact that financial aid for implementing such projects is provided by the World Bank and other international agen. cies even to the State Governments and NGOs;

(e) if so, the details of various categories *of* financial aid available; and

(f) the details of projects for generation of energy from non-conventional sources implemented in Bihat during the preceeding two Five Year plans and those proposed to *be* implemented and pattern of funding thereof?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR): (a) to (c) Government is implementing wide ranging programmes covering the entire gamut dl renewable energy technologies. In order to realise the potential of renewable energy sources for the production of electricity, systematic and sustained measures have been taken for planning and implementing countrywide programmes, specifically in the field of solar, wind, small hydro, biomass based cogeneration etc. A package of fiscal and financial incentives which include any other soft loans, tax holidays, wheeling and banking of power etc., are being provided to encourage generation of electricity from non-conventional energy sources.

(d) and (e) The World Bank is-providing as assistance of US $ 141 million for India Renewable Resource Development Project. Out of this amount, Us $ 115 million is being

provided as IDA credit and US $ 26 million as grant under Global Environment Facility (GEF). In addition, the Swiss Development Corporation is providng cofinancing to the tune of Us $ 4 million as grant for this project. A mixed credit of US $ 50 million has also been envisaged from Danish International Development Agency for this project.

Two more projects, nameiy "Optimising Development of Small Hydel Resources' in hilly regions of India," and "Development of High Rate Biomethanation Processes as means of reducing green house gas emissions" have also been provided financial assistance by UNDP under GEF for the amounts of US $ 7.5 million and Us $ 5.5 million respectively.

Assistance for such projects can also be availed of by "State Governments and NGOs from World Bank' and other international agencies.

(f) Various programmes of the Government for generation of energy from non-conventional energy sources including biogas, improved chulha, biomass, solar thermal, solar photovoltaic, wind, small hydro etc have been implemented in the State of Bihar in the preceding two Five Year Plans and are continuing to be implemented at present. The funding pattern of these programmes is given in Statement.

Statement

Present Funding/ Subsidy patterns of various programmes of non-conventional energy sources

Sl. No.	Progress	Funding/subsidy Patterns	
1	Family Type Biogas Plants	Rs. 1,500 to Rs. 3,500	For various categories of beneficiaries in different regions at the country.
2	Community Biogas Plants	Rs. 44,000 to 2,00,000	
3	Institutional Biogas Plants	Rs. 22,000 to 1,40,000	
4	Night Soil Biogas Plants	Rs. 22,000 to 8,00,000	
5	Improved Chulhas		
	(a). Fixed Chulhas	50% of the cost (maximum of Rs. 50).	
	(b). Portable Chulhas (General/SC/ST)	33% of the cost (maximum of Rs. 50) 50% subject to maximum of Rs. 75 (SC/ST/Hilly Areas)	
6	Biomass Gesification	30% of the cost (Thermal Applications) 60% of the cost (both for mechanical & electrical applications).	
7	Biomass Combustion	Maximum of Rs. 70 lakhs per MW.	
8	Bagasse Based Cogeneration	Rs. 70 lakhs per MW (maximum of Rs. 6 crores per existing sugar mills).	
		Rs. 35 lakhs per MW (maximum of Rs. 3 crores per new sugar mills).	
9	Small Hydro Power	25/50 @ (civil, electrical and mechanical works).	

1	2	3
10	Solar Thermal Systems.	
	(a). Air Heating Systems	Rs. 800 per metre square.
	(b). S oar Stills	Rs. 500 per metre square.
11	Solar Photovoltoic Systems	
	(a). Domestic Lighting Systems	50% of ex-works cost.
	(b). Street Lighting Systems	50% of ex-works cost.
	(c). FV Power Plants	50% of ex-works cost
	(d). Solar Lanterns	Rs. 2,000 per lantern (Rs. 100 service charges).
	(e). SPV Punips	Rs. 150 per WP (Maximum of Rs. 1,50,000 and loan of Rs. 50,000 to 1,00,000).
12	Hind Pumps	50% of ex-works cost
13	Wind Batrery Charges	100% of ex-works cost

Solar Photovoltaic Technology

1629. SHRI S. S. AHLUWALIA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that Solar Photovoltaic (SPY) technology is being extensively applied for conversion of sunlight into electricity if so, the details of its utility;

(b) the number of SPV power plants set up upto 31st December, 1994 and their total capacity;

(c) whether it is a fact that under the 'Urjagram' programme, energy requirements of the remote and farflung areas of the country were to be met by providing renewable energy system based on locally available energy sources in the respective areas; and

(d) the details of the areas, already covered under the 'Urjagram' programme, indicating number of beneficiary villages, alongwith details of survey conducted therefor implementing the programme?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR): (a) and (b) Yes, Sir.

Solar Photovoltaic technology converts sun lignt into electricity in an environmentally clean manner. It has emerged not only as a power source for small applications such as lighting, water pumping, telecommunication etc. but also as a medium size power source for centralisd applications at village level. The technology is utilised commercially tor various applications in Railways, 1 elecommunications and Defence among others.

28,959 number of SPV street lighting systems, 24, 634 domestic lighting systems, 12, 916 solar lanterns and 124 number of small village level power plants (total capacity 563.7 kwp) have been set up in various parts of the country till 31st December, 1994.

(c) The Urjagram Programme is. aimed at harnessing locally available renewable energy resources such as, solar, wind, biomass etc. in an integrated manner for supplementing energy supply options and ultimately bringing about energy self-sufficiency in village. Most of these projects have been set up in remote|SC|ST|Tribal and far flung/unelectrified areas of the country.

(d) Urjagram, projects have been taken up in 412 villages in 19 States/UT' of